

ABSTRACT

The invention provides a multilayer-coated substrate which has recesses and projections of an accurate shape on the surface and has high heat resistance and a high degree of integration, and further provides a process for producing the same.

In superposing layers on a substrate in the invention, the layers are separately molded provisionally to a gel state and the gels are superposed on the substrate to conduct main molding. The multilayer-coated substrate is produced by the so-called sol-gel method. The molds in which the layers are provisionally molded have various surface shapes depending on use purposes of the multilayer-coated substrate. By provisionally molding the layers beforehand so as to have respective given shapes, each layer can be effectively prevented from cracking during main molding.

In the main molding, the substrate and two or more layers superposed thereon are heated while being pressed against each other with a die. Consequently, a multilayer-coated substrate is obtained to which the surface shape of the pressing die has been transferred.